

## IN THE DRAWINGS

Please replace old FIG. 4 with Replacement Sheet FIG. 4. Support for the drawing changes is found on page 6, in the paragraph beginning on line 8. No new matter has been added.

## REMARKS

Claims 1-20 were pending in the application. Claims 3 and 18 are cancelled without prejudice to pursue the subject matter of those claims in a separate application. Claims 1-2, 4-17, and 19-20 remain pending. Claims 1, 4-16, 19 and 20 stand rejected. Claims 1-2, 4-5, 8, 10-16, and 19-20 are currently amended. New claims 21 and 22 have been added. Claims 1-2, 4-16, and 19-22 remain pending in the application.

Claims 1, 4-11, 13-16, 19 and 20 stand rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,613,483 issued to Lukas, et al. (hereinafter "Lukas"). Specifically, the Examiner states:

Lukas discloses a paintball pneumatic assembly comprising a pneumatic piston 124 mounted in a cylinder 112; a bolt 38 coupled to the piston, the bolt including ports 144; and, a sealing member 140. Lukas also discloses a compressed gas storage area 26. The device further includes a body 12, 28 and an aperture 169 in body 28 capable of permitting viewing of gas storage area 26. The bolt is slidably mounted on a valve stem 138, which includes a sealing member 140 arranged on a forward portion thereof.

Office Action, p. 4. Contrary to the Examiner's position, Lukas does not teach a bolt mounted on a valve stem, but rather merely discloses a bolt arranged in a cylinder (annular support member 138). *See* Col. 5, lines 15-19. Lukas also does not disclose bolt ports arranged through lateral sidewalls of the bolt, but rather discloses passageways 144 arranged in "the rear end of the intermediate portion 38." Col. 5, lines 22-23. Further, neither the tank 26 nor any external indicator is viewable through the Lukas aperture 169.

The Examiner appropriately recognized, however, that Lukas does not teach a sealing member arranged in communication with an inner surface of the bolt. Claim 1 has been amended to include this limitation. Claim 1 and each of its dependent claims are therefore believed to be in condition for allowance for this reason and additional reasons.

Claim 10, as amended, also includes at least two limitations not found in Lukas. Namely, bolt ports disposed through a sidewall of the bolt (as discussed earlier) and wherein the bolt port is configured to slide past the sealing member. Lukas does not teach or disclose bolt ports formed through the bolt sidewalls or sliding the bolt ports past the sealing member to release compressed gas from the bolt.

Lukas operates by using a sealing ring 140 in communication with a medial piston rod portion 128 to prevent compressed gas from entering an interior of annular support member 138 when the bolt is in an open position. As the medial portion of the piston rod 128 moves past the sealing member, compressed gas escapes around the piston rod 128 into the interior

of the annular support member 138 and out of the bolt through the bolt passageways 144. The bolt passageways 144, however, are always communicating between the interior of the annular support member 138 and the forward portion of the bolt 32. *See* FIGS. 1 and 2; *see also* col. 5, line 6 through col. 6, line 5.

Because Lukas fails to teach at least these limitations of claim 10, claim 10 and each of its dependent claims are believed to be in condition for allowance. Dependent claims 11-15 are further believed to be allowable for additional reasons. For instance, Lukas does not teach that the relationship between the bolt ports and the sealing member provide the firing valve mechanism. Lukas also does not disclose compressed gas storage chambers arranged entirely within the paintball gun body that have external indicators representing the volume of that chamber. Lukas also does not teach a viewing aperture for permitting viewing of the compressed gas storage chamber arranged in the paintball gun body.

Independent claim 16, as amended, contains further limitations not present in Lukas. For example, Lukas does not disclose transmitting compressed gas directly from the compressed gas storage area into the bolt through a bolt port. As described above, Lukas uses an intermediate, second chamber arranged in the annular support member 138 to transition “the predetermined volume of gas at the predetermined pressure trapped” in the compressed gas storage area from the compressed gas storage area into the passageways 144 and then through the central passage 142 of the forward portion of the bolt 36. *See* col. 5, lines 60-67. Rather than use a transitional second chamber, claim 16 requires that the compressed gas travel directly into the bolt from the compressed gas storage area through the bolt port. Claim 16 and each of its dependent claims are therefore believed to be in condition for allowance.

Each of the dependent claims are believed allowable for still further reasons. For instance, claim 17 was previously said to be allowable if rewritten in independent form. Claim 19 has been amended to depend from claim 17 and further recites additional patentable subject matter as has been explained previously. Dependent claim 20 adds a requirement that the compressed gas storage area receive a substantially constant supply of compressed gas from a compressed gas source. Lukas, however, teaches that the supply of compressed gas into the compressed gas storage chamber should be cut off during a firing operation. *See, e.g.,* col. 6, lines 1-17.

With respect to claims 6-9, the Examiner took Official notice that, at least one year before the filing date of the applicant's claims, compressed gas storage areas (otherwise known as CO2 bottles) included markings indicating the volume therein were well known

and often used in combination with paintball guns at various tournaments (see, e.g. the "Ebay" document listing marked bottles of various sizes for sale). The Examiner further rejected these claims over Lukas in view of the publication CO2 Dynamics. The Examiner, however, mistakenly understood the terms "compressed gas storage area" and "compressed gas storage chamber" to relate to CO2 tanks or bottles. The relevant claims have been amended to clarify, for instance, that the compressed gas storage area is configured to be arranged within the paintball gun in communication with the bolt.

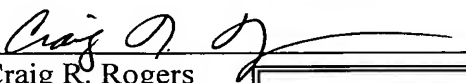
Claim 5, for instance, recites that the compressed gas storage area surrounds at least a portion of the bolt and that compressed gas from the compressed gas storage area is transmitted directly to an interior of the bolt through a bolt port arranged through a sidewall of the bolt. Claims 6-9 each depend directly or indirectly from claim 5 and are therefore believed to be in condition for allowance.

Claim 12 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Lukas in view of U.S. Patent No. 6,065,460 issued to Lotuaco. Claim 12 depends from claim 10 and is believed to be in condition for allowance for at least the reasons discussed previously with respect to claim 10.

Claims 2 and 17 were said to be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, "set forth in this Office Action" and to include all of the limitations of the base claim and any intervening claims. Applicant is, however, unaware of any rejections under 35 U.S.C. § 112. Applicant has amended claim 1 to include the former limitations of claim 2. Claim 17 remains dependent from claim 16 but is believed to be allowable for the reasons discussed previously.

For the foregoing reasons, reconsideration and allowance of claims 1-2, 4-17 and 19-22 of the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

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Date: August 24, 2005

  
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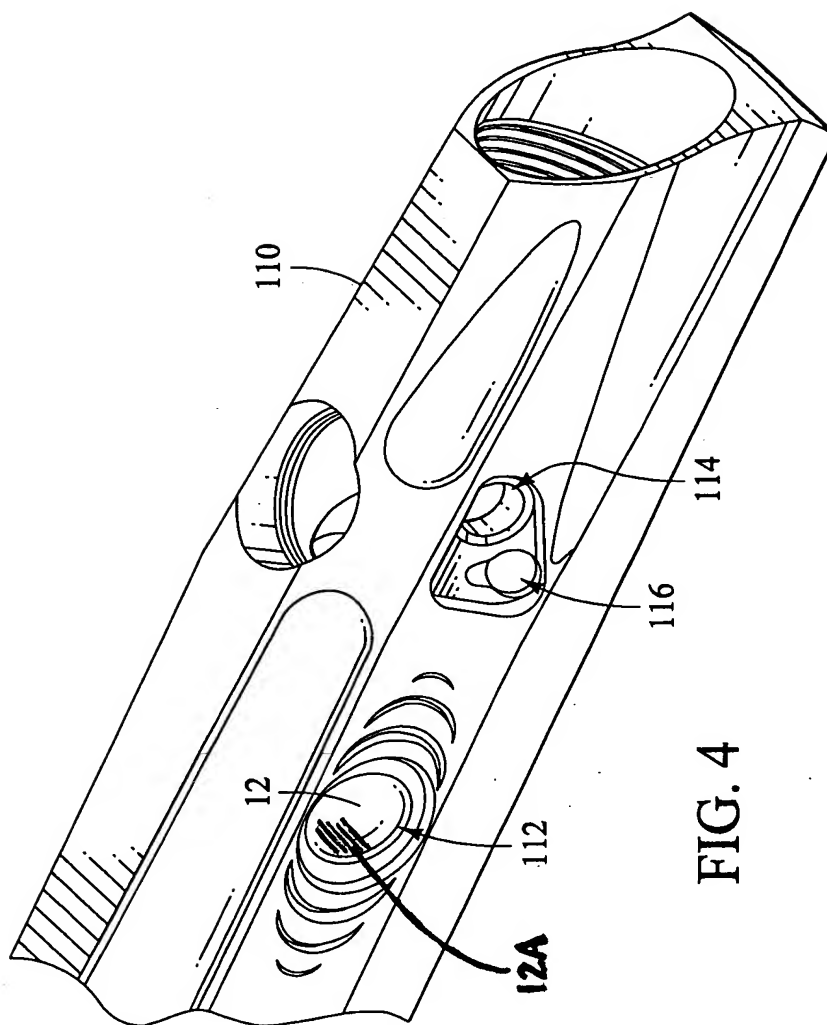


FIG. 4